

# WHAT SHOULD BE THE BALANCE BETWEEN DOMESTIC AND OVERSEAS FACILITIES?

## Physics Must Be The Guide

Physicists go where they can make important discoveries. Currently over half of US HEP scientists do their experiments at facilities outside the US. This will continue. For the next 10-30 years we have no other choice than to **partner** with our colleagues in Europe and Asia. If not we will lose our best scientific opportunities, our best experimenters and the opportunity to design new detectors and accelerators will be greatly diminished.

# The Benefits of Elementary Particle Physics

The discovery and understanding of the basic structure of physical reality, that stimulates technology both directly and indirectly and spearheads basic science, are largely independent of whether the physical facilities are on- or off- shore.

# PARTNERING

We must replace “participate in”, or “contribute to”, with “partner with”.

We should immediately negotiate Associate membership (or something like it) at CERN. We should partner with Europe and Asia to create a strategic worldwide plan for HEP.

One easily can imagine scenarios (e.g. international facilities in Europe, Asia and the US devoted to pp collisions (LHC),  $e^+e^-$  collisions (ILC) and neutrino physics (LBNE) respectively, together with serious R&D for the next big step) that would allow the field to flourish.

# POLITICS

Since true international partnerships are the inevitable direction of “big science” we must not be afraid to confront this issue directly, even as this is a difficult political issue. High Energy Physics has a long history of international cooperation and the successful management of international facilities (notably CERN). We can create a model for international partnership that could benefit the US and its international partners in many areas of science. The parameters of this model are unclear, partly since little serious thought and negotiation has been devoted to this issue.

To this end we must educate our representatives in Congress, our fellow citizens, the business community and the scientific agencies.